LPDES PERMIT NO. LA0003093, AI NO. 2841, ACTIVITY NO. PER20070003

LPDES FACT SHEET AND RATIONALE
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

COMPANY/FACILITY: Entergy Louisiana, LLC
Ninemile Point Generating Station
P.O. Box 61000, L-ENT-5E
New Orleans, LA 70161-1000

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Yvonne Baker

DATE PREPARED: January 17, 2008

1. PERMIT STATUS

A. Reason For Permit Action:
Proposed reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711.

LAC 33: IX Citations: Unless otherwise stated, citations to LAC 33: IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

B. NPDES permit effective date: N/A
NPDES permit expiration date: N/A
EPA has not retained enforcement authority.

C. LPDES permit: LA0003093
LPDES permit effective date: 6/1/2003
LPDES permit expiration date: 5/31/2008

D. Date Application Received: December 3, 2007

2. FACILITY INFORMATION

A. LOCATION – 1617 River Road, Westwego, Jefferson Parish.
(Latitude: 29° 56' 49" Longitude: 90° 08' 44")

B. FACILITY TYPE/ACTIVITY – Entergy Louisiana, LLC, Ninemile Point Generating Station, is a steam electric generating station in operation since 1951 with a net output of 1827 megawatts (MW) of electricity. The plant has five fossil-fuel fired units primarily fueled by natural gas. However, the facility does have the capability to use No. 2 Diesel and No. 2 fuel oil as a secondary fuel source.

C. TECHNOLOGY BASIS - (LAC 33:IX.4903)

Guideline	Reference
Steam Electric Power Generation Point Source Category	40 CFR 423

Other sources of technology based limits:
LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)
LPDES permit LAG6700000, effective on February 1, 2003
Best Professional Judgement

D. FEE RATE

1. Fee Rating Facility Type: Major
2. Complexity Type: III
3. Wastewater Type: I
4. SIC code: 4911

3. RECEIVING WATER

A. Stream: Mississippi River (Outfalls 001, 002, 003, 004, & 007)
B. Basin and Subsegment: Mississippi River, Segment 070301
C. TSS (15%), mg/L: 31.4
D. Average Hardness, mg/L: 152.7
E. Critical Flow, CFS: 141,955
F. Mixing Zone Fraction: 0.333
G. Designated Uses - primary contact recreation, secondary contact recreation, fish and wildlife propagation, and drinking water supply

Information based on the following: LAC 33:IX Chapter 11; Recommendation(s) from the Engineering Section. **Hardness and 15% TSS data come from monitoring stations #47 and #48 on the east and west bank of the Mississippi River at the ferry landing in Luling.**

A. Stream: Parish drainage system (Outfalls 005, 006, & 008)
B. Basin and Subsegment: Barataria, Segment 020701
C. TSS (15%), mg/L: 16.2
D. Average Hardness, mg/L: 232.4
E. Critical Flow, CFS: 0.1 (default value)
F. Mixing Zone Fraction: 1
G. Designated Uses - primary contact recreation, secondary contact recreation, and fish and wildlife propagation

Information based on the following: LAC 33:IX Chapter 11; Recommendation(s) from the Engineering Section. **Hardness and 15% TSS data come from ambient monitoring station #296 on Bayou Segnette at the Jean Lafitte National Park boat launch near Westwego.**

4. OUTFALL INFORMATION

Outfall 001

A. Discharge Type: once through non-contact cooling water for Units 1 and 2
B. Treatment: screening and disinfection
C. Location: at the point of discharge from the turbine condenser cooling system, prior to where the once through non-contact cooling water discharge enters the Mississippi River (Lat 29° 57' 00'', Lon 90° 08' 38").
D. Flow: 165.4 MGD
E. Discharge Route: to the Mississippi River
F. Basin and Segment: Mississippi River, Segment 070301

Outfall 002

A. Discharge Type: once through non-contact cooling water for Unit 3
B. Treatment: screening and disinfection
C. Location: at the point of discharge from the turbine condenser cooling system, prior to where the once through non-contact cooling water discharge enters the Mississippi River (Lat 29° 57' 00'', Lon 90° 08' 38").
D. Flow: 109.8 MGD
E. Discharge Route: to the Mississippi River
F. Basin and Segment: Mississippi River, Segment 070301

Outfall 003

A. Discharge Type: once through non-contact cooling water for Unit 4
B. Treatment: screening and disinfection
C. Location: at the point of discharge from the turbine condenser cooling system, prior to where the once through non-contact cooling water discharge enters the Mississippi River (Lat 29° 56' 59'', Lon 90° 08' 37").
D. Flow: 611.3 MGD
E. Discharge Route: to the Mississippi River
F. Basin and Segment: Mississippi River, Segment 070301

Outfall 004

A. Discharge Type: once through non-contact cooling water for Unit 5
B. Treatment: screening and disinfection
C. Location: at the point of discharge from the turbine condenser cooling system, prior to where the once through non-contact cooling water discharge enters the Mississippi River (Lat 29° 56' 58'', Lon 90° 08' 37").
D. Flow: 611.3 MGD
E. Discharge Route: to the Mississippi River
F. Basin and Segment: Mississippi River, Segment 070301

Outfall 005

A. Discharge Type:	low volume wastewaters from plant washdown, floor and area drainage from Units 1, 2, 3, 4, and 5, maintenance wastewater, stormwater, and previously monitored effluent from Internal Outfalls105 and 205.
B. Treatment:	neutralization, flotation, and filtration
C. Location:	at the point of discharge from the oily waste pond located on the west side of the facility, prior to entering the Parish drainage system at (Lat 29° 56' 57'', Lon 90° 08' 59").
D. Flow:	0.0767 MGD
E. Discharge Route:	to the Parish drainage system thence into Bayou Segnette
F. Basin and Segment:	Barataria, Segment 020701

Outfall 105

A. Discharge Type:	mobile intermittent discharge of metal cleaning wastewaters (both chemical and non-chemical) from various plant equipment components including, but not limited to: the steam generator, cooling water heat exchanger, boiler tubes, and piping.
B. Treatment:	mixing, chemical oxidation, chemical precipitation, coagulation, multimedia filtration, gravity thickening, chemical conditioning, and vacuum filtration
C. Location:	at the point of discharge from the mobile cleaning process unit (s), prior to combining with the waters of Final Outfall 005 or Final Outfall 006.
D. Flow:	Intermittent; 0.023 MGD
E. Discharge Route:	to Final Outfall 005 or Final Outfall 006
F. Basin and Segment:	Barataria, Segment 020701

Outfall 205

A. Discharge Type:	hydrostatic test water
B. Treatment:	none
C. Location:	at the point of discharge from the hydrostatic testing site, prior to combining with the waters of Final Outfall 005 or Final Outfall 006.
D. Flow:	Intermittent
E. Discharge Route:	to Final Outfall 005 or Final Outfall 006
F. Basin and Segment:	Barataria, Segment 020701

Outfall 006

A. Discharge Type:	low volume wastewaters including, but not limited to, clarifier blowdown, hydrostatic test wastewater, maintenance wastewater, filter backwash, and reverse/osmosis reject water and clarifier underflow. The low volume wastewater combines with stormwater runoff, floor drains from Units 1-4, and runoff from fuel oil storage tank area. Occasional effluent from previously monitored Internal Outfalls 105 and 205 are discharged through Outfall 006 as a result of maintenance activities.
B. Treatment:	neutralization, floatation, and filtration
C. Location:	at the point of discharge from the oily waste pond located on the south side of the facility, prior to entering the Parish drainage system at (Lat 29° 56' 29'', Lon 90° 08' 56").
D. Flow:	Intermittent; 0.330 MGD
E. Discharge Route:	to the Parish drainage system thence into Bayou Segnette
F. Basin and Segment:	Barataria, Segment 020701

Outfall 007

A. Discharge Type:	low contamination potential stormwater runoff from the fueling unloading dock.
B. Treatment:	none
C. Location:	at the point of discharge from the dock, prior to entering the Mississippi River at (Lat 29° 56' 53'', Lon 90° 08' 34").
D. Flow:	Intermittent; 0.00049 MGD
E. Discharge Route:	to the Mississippi River
F. Basin and Segment:	Mississippi River, Segment 070301

Outfall 008

A. Discharge Type:	low contamination potential stormwater runoff from industrial and non-industrial portions of the west side of the plant.
B. Treatment:	none
C. Location:	at the point of discharge from the west ditch, prior to entering the Parish drainage system at (Lat 29° 56' 46'', Lon 90° 09' 04").
D. Flow:	Intermittent; 0.04270 MGD
E. Discharge Route:	to the Parish drainage system thence into Bayou Segnette
F. Basin and Segment:	Barataria, Segment 020701

5. PREVIOUS EFFLUENT LIMITATIONS

Outfall 001 - continuous discharge of once through non-contact cooling water from Units 1 and 2

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	165.4	165.4	1/day	Estimate
Temperature (°F)	00011	115	118	Continuous	Recorder
Total Residual Chlorine	50060	---	23 lbs/day	1/week	Grab
Total Residual Chlorine	50060	---	0.2 mg/L	1/week	Grab

WHOLE EFFLUENT (Acute) TOXICITY TESTING	Percent %, UNLESS STATED			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE MINIMUM	48-Hour MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, *Pimephales promelas*	TEM6C	Report	Report	1/year	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, *Pimephales promelas*	TOM6C	Report	Report	1/year	24-hr. Composite
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, *Daphnia pulex*	TEM3D	Report	Report	1/year	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, *Daphnia pulex*	TOM3D	Report	Report	1/year	24-hr. Composite

There shall be no discharge of floating solids or visible foam in other than trace amounts. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 001, at the point of discharge from the turbine condenser cooling system prior to where the once through non-contact cooling water discharge enters into the waters of the Mississippi River

Outfall 002 - continuous discharge of once through non-contact cooling water from Unit 3

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	109.8	109.8	1/day	Estimate
Temperature (°F)	00011	113	115	Continuous	Recorder
Total Residual Chlorine	50060	---	16 lbs/day	1/week	Grab
Total Residual Chlorine	50060	---	0.2 mg/L	1/week	Grab

WHOLE EFFLUENT (Acute) TOXICITY TESTING	Percent %, UNLESS STATED			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE MINIMUM	48-Hour MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, *Pimephales promelas*	TEM6C	Report	Report	1/year	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, *Pimephales promelas*	TOM6C	Report	Report	1/year	24-hr. Composite
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, *Daphnia pulex*	TEM3D	Report	Report	1/year	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, *Daphnia pulex*	TOM3D	Report	Report	1/year	24-hr. Composite

There shall be no discharge of floating solids or visible foam in other than trace amounts. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 002, at the point of discharge from the turbine condenser cooling system, prior to where the once through non-contact cooling water discharge enters the Mississippi River

Outfall 003 - continuous discharge of once through non-contact cooling water from Unit 4

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	611.3	611.3	1/day	Estimate
Temperature (°F)	00011	111	113	Continuous	Recorder
Total Residual Chlorine	50060	---	85 lbs/day	1/week	Grab
Total Residual Chlorine	50060	---	0.2 mg/L	1/week	Grab

WHOLE EFFLUENT (Acute) TOXICITY TESTING	Percent %, UNLESS STATED			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE MINIMUM	48-Hour MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, *Pimephales promelas*	TEM6C	Report	Report	1/year	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, *Pimephales promelas*	TOM6C	Report	Report	1/year	24-hr. Composite
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, *Daphnia pulex*	TEM3D	Report	Report	1/year	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, *Daphnia pulex*	TOM3D	Report	Report	1/year	24-hr. Composite

There shall be no discharge of floating solids or visible foam in other than trace amounts. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 003, at the point of discharge from the turbine condenser cooling system, prior to where the once through non-contact cooling water discharge enters the Mississippi River

Outfall 004 - continuous discharge of once through non-contact cooling water from Unit 5

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	611.3	611.3	1/day	Estimate
Temperature (°F)	00011	111	113	Continuous	Recorder
Total Residual Chlorine	50060	---	85 lbs/day	1/week	Grab
Total Residual Chlorine	50060	---	0.2 mg/L	1/week	Grab

WHOLE EFFLUENT (Acute) TOXICITY TESTING	Percent %, UNLESS STATED			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE MINIMUM	48-Hour MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, *Pimephales promelas*	TEM6C	Report	Report	1/year	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, *Pimephales promelas*	TOM6C	Report	Report	1/year	24-hr. Composite
NOEC, Pass/Fail [0/1] Lethality, Static Renewal, 48-Hour Acute, *Daphnia pulex*	TEM3D	Report	Report	1/year	24-hr. Composite
NOEC, Value [%] Lethality, Static Renewal, 48-Hour Acute, *Daphnia pulex*	TOM3D	Report	Report	1/year	24-hr. Composite

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 004, at the point of discharge from the turbine condenser cooling system, prior to where the once through non-contact cooling water discharge enters the Mississippi River

Outfall 005 - the discharge of low volume wastewaters from plant washdown, floor and area drainage from Units 1, 2, 3, 4, and 5, maintenance wastewater, stormwater and previously monitored effluent from Internal Outfall 105

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	Report	Report	1/day	Estimate
TSS	00530	30 mg/L	100 mg/L	1/week	Grab
Oil & Grease	03582	15 mg/L	20 mg/L	1/week	Grab
TOC	00680	---	50 mg/L	1/week	Grab
pH -Allowable range (standard units)	00400	6.0 Minimum	9.0 Maximum	1/week	Grab

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 005, at the point of discharge from the oily waste pond located on the west side of the facility, prior to entering the Parish drainage system.

Outfall 105 - mobile intermittent discharge of metal cleaning wastewaters (both chemical and non-chemical) from various plant equipment components including, but not limited to: the steam generator, cooling water heat exchangers, boiler tubes, and piping

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	Report	Report	1/day	Estimate
Total Copper	01042	1.0 mg/L	1.0 mg/L	1/week	Grab
Total Iron	01045	1.0 mg/L	1.0 mg/L	1/week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 105, at the point of discharge from the mobile cleaning process unit (s), prior to combining with the waters of Final Outfall 005 or Final Outfall 006.

Outfall 006 – low volume wastewaters including, but not limited to, clarifier blowdown, hydrostatic test wastewater, maintenance wastewater, filter backwash, and reverse/osmosis reject water. The low volume wastewater combines with stormwater runoff, floor drains from Units 1-4, and runoff from fuel oil storage tank area. Occasional effluent from previously monitored Internal Outfall 105 is discharged through Outfall 006 as a result of maintenance activities

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	Report	Report	1/day	Estimate
TSS	00530	30 mg/L	100 mg/L	1/week	Grab
Oil & Grease	03582	15 mg/L	20 mg/L	1/week	Grab
TOC	00680	---	50 mg/L	1/week	Grab
pH -Allowable range (standard units)	00400	6.0 Minimum	9.0 Maximum	1/week	Grab

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 006, at the point of discharge from the oily waste pond located on the south side of the facility, prior to entering the Parish drainage system.

Outfall 007 – low contamination potential stormwater runoff from the fuel unloading dock.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	Report	Report	1/quarter	Estimate
Oil & Grease	03582	---	15 mg/L	1/quarter	Grab
TOC	00680	---	50 mg/L	1/quarter	Grab
pH -Allowable range (standard units)	00400	6.0 Minimum	9.0 Maximum	1/quarter	Grab

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 007, at the point of discharge from the dock, prior to entering the Mississippi River.

Outfall 008 –low contamination potential stormwater runoff from industrial and non-industrial portions of the west side of the plant.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)			MONITORING REQUIREMENTS	
	STORET CODE	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (MGD)	50050	Report	Report	1/quarter	Estimate
Oil & Grease	03582	---	15 mg/L	1/quarter	Grab
TOC	00680	---	50 mg/L	1/quarter	Grab
pH -Allowable range (standard units)	00400	6.0 Minimum	9.0 Maximum	1/quarter	Grab

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Outfall 008, at the point of discharge from the west ditch, prior to entering the Parish drainage system.

6. SUMMARY OF PROPOSED PERMIT CHANGES

Outfall 205 for general hydrostatic test water has been added at the request of the facility.

Clarifier underflow has been added to the description of Outfall 006 and a reporting requirement for coagulants has been added to Outfall 006

Part II Requirements

1. Part II conditions for implementation of 316(b) Phase II Rule requirements have been placed in the draft permit.

7. PROPOSED PERMIT LIMITS

The specific effluent limitations and/or conditions will be found in the draft permit. Development of permit limits are detailed in the Permit Limit Rationale section below.

8. PERMIT LIMIT RATIONALE

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at LAC 33:IX.2707.L.2.b, the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2707.A or on State water quality standards and requirements pursuant to LAC 33:IX.2707.D, whichever are more stringent.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS, MONITORING FREQUENCIES AND CONDITIONS

Regulations promulgated at LAC 33:IX.2707.A require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two. The permittee is subject to Best Practicable Control Technology Currently Available (BPT) and Best Available Technology Economically Achievable (BAT) effluent limitation guidelines listed below:

Manufacturing Operation	Guideline
Steam Electric Power Generating Point Source Category	40 CFR 423

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC 33:IX.2715] and to assure compliance with permit limitations [LAC 33:IX.2707.I]

C. MONITORING FREQUENCIES

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC 33:IX.2715] and to assure compliance with permit limitations [LAC 33:IX.2707.I]. Specific monitoring frequencies per outfall are listed in Section D.

D. OUTFALL SPECIFIC RATIONALES

Outfall 001

1. General Comments

This outfall is the continuous discharge of once-through non-contact cooling water from Units 1 and 2. During maintenance activities concentrations of an oxidizing agent are introduced to control biofouling.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow - MGD	165.4	165.4	1/day	Estimate
Temperature (°F)	115	118	Continuous	Recorder
Total Residual Chlorine	---	23 lbs/day	1/week	Grab
Total Residual Chlorine	---	0.2 mg/L	1/week	Grab
Biomonitoring	See Below	See Below	1/quarter	See Below

Flow – The monthly average and daily maximum limitations, monitoring frequency, and sample type for flow have been retained from the current LPDES permit. This requirement is consistent with LAC 33:IX.2707.I.1.b. Flow is measured once per day and shall be derived by pump curves and/or pump calculations.

Temperature – The current LPDES permit established a monthly average of 115°F and daily maximum limit of 118°F. These limitations are retained with the same monitoring frequency and sample type of continuous monitoring by recorder. The NPDES permit effective October 8, 1978 established the temperature limitations retained in this permit. The NPDES permit effective July 20, 1981 retained the same limitations using water quality criteria as basis..

Total Residual Chlorine – The daily maximum discharge limit for total residual chlorine of 23 pounds per day is retained from the previous permit in accordance with 40 CFR 423.13 (BAT) (b) (1). A concentration limit for total residual chlorine of 0.2 mg/L is retained from the previous permit in accordance with 40 CFR 423.13 (BAT) (b) (1). The monitoring frequency of once per week by grab sample is retained from the

current LPDES permit. The sample shall be representative of any periodic episodes of chlorination, biocide usage, or other potentially toxic substance discharge on an intermittent basis.

Biomonitoring Requirements - It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall 001 are as follows:

TOXICITY TESTS	FREQUENCY
Acute static renewal 48-hour definitive toxicity test using fathead minnow (Pimephales promelas)	once per quarter
Acute static renewal 48-hour definitive toxicity test using water flea (Daphnia pulex)	once per quarter

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and salinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. However, the full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 2.3%, 3.0%, 4.0%, 5.4%, and 7.2%. The low-flow effluent concentration (critical dilution) is defined as 5.4% effluent.

Outfall 002

1. General Comments

According to the application, this outfall is the continuous discharge of once-through non-contact cooling water from Unit 3. During maintenance activities concentrations of an oxidizing agent are introduced to control biofouling.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow - MGD	109.8	109.8	1/day	Estimate
Temperature (°F)	113	115	Continuous	Recorder
Total Residual Chlorine	---	16 lbs/day	1/week	Grab
Total Residual Chlorine	---	0.2 mg/L	1/week	Grab
Biomonitoring	See Below	See Below	1/quarter	See Below

Flow – The monthly average and daily maximum limitations, monitoring frequency, and sample type for flow have been retained from the current LPDES permit. This requirement is consistent with LAC 33:IX.2707.I.1.b. Flow is measured once per day and shall be derived by pump curves and/or pump calculations.

Temperature – The current LPDES permit established a monthly average of 113°F and daily maximum limit of 115°F. These limitations are retained with the same monitoring frequency and sample type of continuous monitoring by recorder. The NPDES permit effective October 8, 1978 established the temperature limitations retained in this permit. The NPDES permit effective July 20, 1981 retained the same limitations using water quality criteria as basis.

Total Residual Chlorine – The daily maximum discharge limit for total residual chlorine of 16 pounds per day is retained from the previous permit in accordance with 40 CFR 423.13 (BAT) (b) (1). A concentration limit for total residual chlorine of 0.2 mg/L is retained from the previous permit in accordance with 40 CFR 423.13 (BAT) (b) (1). The monitoring frequency of once per week by grab sample is retained from the current LPDES permit. The sample shall be representative of any periodic episodes of chlorination, biocide usage, or other potentially toxic substance discharge on an intermittent basis.

Biomonitoring Requirements - It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination

will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall 002 are as follows:

TOXICITY TESTS	FREQUENCY
Acute static renewal 48-hour definitive toxicity test using fathead minnow (Pimephales promelas)	once per quarter
Acute static renewal 48-hour definitive toxicity test using water flea (Daphnia pulex)	once per quarter

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and salinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. However, the full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 1.5%, 2.0%, 2.7%, 3.6%, and 4.8%. The low-flow effluent concentration (critical dilution) is defined as 3.6% effluent.

Outfall 003

1. General Comments

According to the application, this outfall is the continuous discharge of once-through non-contact cooling water from Unit 4. During maintenance activities concentrations of an oxidizing agent are introduced to control biofouling.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow - MGD	611.3	611.3	1/day	Estimate
Temperature (°F)	111	113	Continuous	Recorder
Total Residual Chlorine	---	85 lbs/day	1/week	Grab
Total Residual Chlorine	---	0.2 mg/L	1/week	Grab
Biomonitoring	See Below	See Below	1/quarter	See Below

Flow – The monthly average and daily maximum limitations, monitoring frequency, and sample type for flow have been retained from the current LPDES permit. This requirement is consistent with LAC 33:IX.2707.I.1.b. Flow is measured once per day and shall be derived by pump curves and/or pump calculations.

Temperature – The current LPDES permit established a monthly average of 111°F and daily maximum limit of 113°F. These limitations are retained with the same monitoring frequency and sample type of continuous monitoring by recorder. The NPDES permit effective October 8, 1978 established the temperature limitations retained in this permit. The NPDES permit effective July 20, 1981 retained the same limitations using water quality criteria as basis.

Total Residual Chlorine – The daily maximum discharge limit for total residual chlorine of 85 pounds per day is retained from the previous permit in accordance with 40 CFR 423.13 (BAT) (b) (1). A concentration limit for total residual chlorine of 0.2 mg/L is retained from the previous permit in accordance with 40 CFR 423.13 (BAT) (b) (1). The monitoring frequency of once per week by grab sample is retained from the current LPDES permit. The sample shall be representative of any periodic episodes of chlorination, biocide usage, or other potentially toxic substance discharge on an intermittent basis.

Biomonitoring Requirements - It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream

water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall 003 are as follows:

TOXICITY TESTS	FREQUENCY
Acute static renewal 48-hour definitive toxicity test using fathead minnow (Pimephales promelas)	once per quarter
Acute static renewal 48-hour definitive toxicity test using water flea (Daphnia pulex)	once per quarter

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and salinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. However, the full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 8.3%, 11.0%, 14.7%, 19.6%, and 26.1%. The low-flow effluent concentration (critical dilution) is defined as 19.6% effluent.

Outfall 004

1. General Comments

According to the application, this outfall is the continuous discharge of once-through non-contact cooling water from Unit 5. During maintenance activities concentrations of an oxidizing agent are introduced to control biofouling.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow - MGD	611.3	611.3	1/day	Estimate
Temperature (°F)	111	113	Continuous	Recorder
Total Residual Chlorine	---	85 lbs/day	1/week	Grab
Total Residual Chlorine	---	0.2 mg/L	1/week	Grab
Biomonitoring	See Below	See Below	1/quarter	See Below

Flow – The monthly average and daily maximum limitations, monitoring frequency, and sample type for flow have been retained from the current LPDES permit. This requirement is consistent with LAC 33:IX.2707.I.1.b. Flow is measured once per day and shall be derived by pump curves and/or pump calculations.

Temperature – The current LPDES permit established a monthly average of 111°F and daily maximum limit of 113°F. These limitations are retained with the same monitoring frequency and sample type of continuous monitoring by recorder. The NPDES permit effective October 8, 1978 established the temperature limitations retained in this permit. The NPDES permit effective July 20, 1981 retained the same limitations using water quality criteria as basis.

Total Residual Chlorine – The daily maximum discharge limit for total residual chlorine of 85 pounds per day is retained from the previous permit in accordance with 40 CFR 423.13 (BAT) (b) (1). A concentration limit for total residual chlorine of 0.2 mg/L is retained from the previous permit in accordance with 40 CFR 423.13 (BAT) (b) (1). The monitoring frequency of once per week by grab sample is retained from the current LPDES permit. The sample shall be representative of any periodic episodes of chlorination, biocide usage, or other potentially toxic substance discharge on an intermittent basis.

Biomonitoring Requirements - It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream

water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall 004 are as follows:

TOXICITY TESTS	FREQUENCY
Acute static renewal 48-hour definitive toxicity test using fathead minnow (Pimephales promelas)	once per quarter
Acute static renewal 48-hour definitive toxicity test using water flea (Daphnia pulex)	once per quarter

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and salinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. However, the full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 8.3%, 11.0%, 14.7%, 19.6%, and 26.1%. The low-flow effluent concentration (critical dilution) is defined as 19.6% effluent.

Outfall 005

1. General Comments

. This outfall is the discharge of low volume wastewaters from plant washdown, floor and area drainage from Units 1, 2, 3, 4, and 5, maintenance wastewater, stormwater and previously monitored effluent from Internal Outfalls 105 and 205.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report	Report	1/day	Estimate
Total Suspended Solids	30 mg/L	100 mg/L	1/week	Grab
Oil and Grease	15 mg/L	20 mg/L	1/week	Grab
Total Organic Carbon	---	50 mg/L	1/week	Grab
pH, standard units	6.0 (min)	9.0 (max)	1/week	Grab

Flow – The flow requirements for reporting the monthly average flow and the daily maximum flow with the same monitoring frequency of once per day, when discharging have been retained from the current LPDES permit. The daily maximum flow is to be estimated using best engineering judgement. This requirement is consistent with LAC 33:IX.2707.1.1.b.

Total Suspended Solids - The current LPDES permit established a monthly average limit of 30 mg/L and a daily maximum limit of 100 mg/L for TSS in accordance with 40 CFR 423.12(b)(3). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Oil & Grease - The current LPDES permit established a monthly average limit of 15 mg/L and a daily maximum limit of 20 mg/L for oil & grease in accordance with 40 CFR 423.12(b)(3). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Total Organic Carbon - The current LPDES permit established a daily maximum limit of 50 mg/L for TOC. These limitations are retained with the same monitoring frequency of once per week by grab sample.

pH - The current LPDES permit established a minimum limit of 6.0 standard units and a maximum limit of 9.0 standard units for pH in accordance with 40 CFR 423.12(b)(1). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Internal Outfalls

In accordance with LAC 33:IX.3305, the following is an explanation for the establishment of Internal Outfalls 105 and 205. Certain permit effluent limitations at the point of discharge are impractical because at the final discharge point the wastes at the point of discharge are so diluted as to make monitoring impracticable. Therefore, in accordance with LAC 33:IX.2709 the internal outfall described below will remain in the permit.

Internal Outfall 105

1. General Comments

This outfall is the mobile intermittent discharge of metal cleaning wastewaters (both chemical and non-chemical) from various plant equipment components including, but not limited to: the steam generator, cooling water heat exchanger, boiler tubes, and piping.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report	Report	1/day	Estimate
Total Copper	1.0 mg/L	1.0 mg/L	1/week	Grab
Total Iron	1.0 mg/L	1.0 mg/L	1/week	Grab

Flow – The flow requirements for reporting the monthly average and daily maximum flow with a monitoring frequency of once per day, when discharging by estimate have been retained from the previous LPDES permit. This requirement is consistent with LAC 33:IX.2707.I.1.b.

Total Copper and Total Iron - The current LPDES permit established a monthly average limitation of 1.0 mg/L and a daily maximum limit of 1.0 mg/L for Total Copper and Total Iron in accordance with 40 CFR 423.12(b)(5). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Internal Outfall 205

1. General Comments

This outfall is the mobile intermittent discharge of hydrostatic test water.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report	Report	1/event	Estimate
Total Suspended Solids	---	90 mg/L	1/event	Grab
Oil and Grease	---	15 mg/L	1/event	Grab
Total Organic Carbon	---	50 mg/L	1/event	Grab
Benzene**	---	50 µg/L	1/event	Grab
Total BTEX**	---	250 µg/L	1/event	Grab
Lead**	---	50 µg/L	1/event	Grab

**Sampling for Benzene, Total BTEX, and Lead is only required when discharging hydrostatic test water from existing pipes, tanks, vessels, and/or equipment that have been used for the storage or transportation of liquid or gaseous petroleum hydrocarbons, i.e. diesel tanks or natural gas lines.

Flow – This LPDES permit establishes a flow requirement for reporting the daily maximum flow with a monitoring frequency of once prior to discharge by estimate has been established. This requirement is consistent with LAC 33:IX.2707.I.1.b and the LPDES General Permit for Hydrostatic Test Wastewater, LAG670000.

Total Suspended Solids - This LPDES permit establishes a daily maximum limit of 90.0 mg/L in accordance with the LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. The monitoring frequency is set at once prior to discharge by grab sample.

Oil and Grease - This LPDES permit establishes a daily maximum limit of 15.0 mg/L in accordance with the LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. The monitoring frequency is set at once prior to discharge by grab sample.

Total Organic Carbon - This LPDES permit establishes a daily maximum limit of 50.0 mg/L in accordance with the LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. The monitoring frequency is set at once prior to discharge by grab sample.

Benzene, Total BTEX and Lead - This LPDES permit establishes a daily maximum limit of 50 µg/L for Benzene, 250 µg/L for Total BTEX, and 50 µg/L for Lead in accordance with the LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. The monitoring frequencies are set at once prior to discharge by grab sample.

Outfall 006

1. General Comments

This outfall is the low volume wastewaters including, but not limited to, clarifier blowdown, hydrostatic test wastewater, maintenance wastewater, filter backwash, and reverse/osmosis reject water, and clarifier underflow. The low volume wastewater combines with stormwater runoff, floor drains from Units 1-4, and runoff from fuel oil storage tank area. Occasional effluent from previously monitored Internal Outfalls 105 and 205 is discharged through Outfall 006 as a result of maintenance activities.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report	Report	1/day	Estimate
Total Suspended Solids	30 mg/L	100 mg/L	1/week	Grab
Oil and Grease	15 mg/L	20 mg/L	1/week	Grab
Total Organic Carbon	---	50 mg/L	1/week	Grab
pH, standard units	6.0 (min)	9.0 (max)	1/week	Grab

COAGULANTS:

The quantity and types of all coagulants (clarifying agents) used in the intake raw river water treatment clarification system during the sampling month shall be recorded. Records of the quantity and type of coagulants used shall be retained for three (3) years following Part III.C.3. No DMR reporting shall be required.

Flow – The flow requirements for reporting the monthly average flow and daily maximum flow with a monitoring frequency of once per day, when discharging by estimate have been retained from the previous LPDES permit. This requirement is consistent with LAC 33:IX.2707.I.1.b.

Total Suspended Solids - The current LPDES permit established a monthly average limit of 30 mg/L and a daily maximum limit of 100 mg/L for TSS in accordance with 40 CFR 423.12(b)(3). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Oil & Grease - The current LPDES permit established a monthly average limit of 15 mg/L and a daily maximum limit of 20 mg/L for oil & grease in accordance with 40 CFR 423.12(b)(3). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Total Organic Carbon - The current LPDES permit established a daily maximum limit of 50 mg/L for TOC. These limitations are retained with the same monitoring frequency of once per week by grab sample.

pH - The current LPDES permit established a minimum limit of 6.0 standard units and a maximum limit of 9.0 standard units for pH in accordance with 40 CFR 423.12(b)(1). These limitations are retained with the same monitoring frequency of once per week by grab sample.

Coagulants - The recording of coagulants have been included based on similar discharges.

Outfall 007

1. General Comments

This outfall is the intermittent discharge low contamination potential stormwater runoff from the fuel unloading dock.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY[1]	SAMPLE TYPE
Flow	Report	Report	1/quarter	Estimate
Oil and Grease	---	15 mg/L	1/quarter	Grab
Total Organic Carbon	---	50 mg/L	1/quarter	Grab
pH, standard units	6.0 (min)	9.0 (max)	1/quarter	Grab

Flow – The flow requirements for reporting the monthly average flow and the daily maximum flow with the same monitoring frequency of once per quarter, when discharging have been retained from the current LPDES permit. The daily maximum flow is to be estimated using best engineering judgement. This requirement is consistent with LAC 33:IX.2707.I.1.b.

Oil & Grease - The current LPDES permit established a daily maximum limit of 15 mg/L for oil & grease. These limitations are retained with the same monitoring frequency of once per quarter by grab sample.

Total Organic Carbon - The current LPDES permit established a daily maximum limit of 50 mg/L for TOC. These limitations are retained with the same monitoring frequency of once per quarter by grab sample.

pH - The current LPDES permit established a minimum limit of 6.0 standard units and a maximum limit of 9.0 standard units for pH in accordance with 40 CFR 423.12(b)(1). These limitations are retained with the same monitoring frequency of once per quarter by grab sample.

Outfall 008

1. General Comments

This outfall is the intermittent discharge low contamination potential stormwater runoff from industrial and non-industrial portions of the west side of the plant.

2. Effluent Limitations, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION Units (Specify)		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY[1]	SAMPLE TYPE
Flow	Report	Report	1/quarter	Estimate
Oil and Grease	---	15 mg/L	1/quarter	Grab
Total Organic Carbon	---	50 mg/L	1/quarter	Grab
pH, standard units	6.0 (min)	9.0 (max)	1/quarter	Grab

Flow – The flow requirements for reporting the monthly average flow and the daily maximum flow with the same monitoring frequency of once per quarter, when discharging have been retained from the current LPDES permit. The daily maximum flow is to be estimated using best engineering judgement. This requirement is consistent with LAC 33:IX.2707.I.1.b.

Oil & Grease - The current LPDES permit established a daily maximum limit of 15 mg/L for oil & grease. These limitations are retained with the same monitoring frequency of once per quarter by grab sample.

Total Organic Carbon - The current LPDES permit established a daily maximum limit of 50 mg/L for TOC. These limitations are retained with the same monitoring frequency of once per quarter by grab sample.

pH - The current LPDES permit established a minimum limit of 6.0 standard units and a maximum limit of 9.0 standard units for pH in accordance with 40 CFR 423.12(b)(1). These limitations are retained with the same monitoring frequency of once per quarter by grab sample.

Part II Specific Conditions

PROHIBITION OF PCB DISCHARGES

As commanded by 40 CFR 423.12(b)(2), a Part II condition is proposed in this draft permit prohibiting the discharge of polychlorinated biphenyl compounds:

"There shall be no discharge of polychlorinated biphenyls (PCB's). The minimum quantification level for PCB's is 1.0 µg/l. If any individual analytical test result for PCB's is less than the minimum quantification level, then a value of zero (0) shall be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements."

PROHIBITION OF 126 PRIORITY POLLUTANTS

There shall be no discharge of any 126 priority pollutants (40 CFR 423 Appendix A) associated with the chemicals added for cooling tower maintenance, except total chromium and total zinc. The minimum quantification levels for the 126 priority pollutants are found in Part II, Paragraph I.

CHEMICAL METAL CLEANING WASTE

The term "chemical metal cleaning waste" means any wastewater resulting from cleaning of any metal process equipment with chemical compounds, including, but not limited to, boiler tube cleaning.

METAL CLEANING WASTE

The term "metal cleaning waste" means any wastewater resulting from cleaning (with or without chemical cleaning compounds) any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

LOW VOLUME WASTE SOURCES

The term "low volume waste sources" means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations are otherwise established. Low volume waste sources include, but are not limited to: wastewaters from wet scrubber air pollution control systems, ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastewaters are not included.

TOTAL RESIDUAL CHLORINE

The term "total residual chlorine" (or total residual oxidants for intake water with bromides) means the value obtained using the amperometric method for total residual chlorine described in 40 CFR Part 136.

Total residual chlorine may not be discharged from any unit for more than two hours per day.

Simultaneous multi-unit chlorination is permitted.

TEMPERATURE

Daily temperature discharge is defined as the flow-weighted average (FWAT) and, on a daily basis, shall be monitored and recorded in accordance with Part I of this permit. FWAT shall be calculated at equal time intervals not greater than two hours. The method of calculating FWAT is as follows:

$$\text{FWAT} = \frac{\text{SUMMATION (INSTANTANEOUS FLOW X INSTANTANEOUS TEMPERATURE)}}{\text{SUMMATION (INSTANTANEOUS FLOW)}}$$

"Daily average temperature" (also known as average monthly or maximum 30 day value) shall be the arithmetic average of all FWATs calculated during the calendar month.

"Daily maximum temperature" (also known as the maximum daily value) shall be the highest FWAT calculated during the calendar month.

ZEBRA MUSSEL TREATMENT

The terms and conditions of the zebra mussel treatment program submitted by Entergy Louisiana, Inc., Ninemile Point Generating Station, and approved by this Office on June 7, 1996 shall be enforceable as if part of this permit.

According to section 3.d., "Samples and Composites", of the biomonitoring requirements paragraph of this permit, the permittee must collect composite samples that "are representative of any periodic episodes of chlorination, biocide usage, or other potentially toxic substance discharged on an intermittent basis". Anytime the treatment method involves an increase in the concentration of a treatment chemical, a change in the type of treatment chemical used, or if any event occurs that creates the potential for an effluent with a higher toxic nature, additional biomonitoring according to the terms and conditions of the biomonitoring section of Part II of this permit shall be required.

The permittee must notify this Office if changes occur in the zebra mussel control plan and obtain approval prior to initiating the new treatment. If chlorine is applied to control zebra mussels, the permittee must comply with a daily maximum Total Residual Chlorine (TRC) concentration limit of 0.2 mg/L. Monitoring shall be performed at a frequency of 1/day, by grab sample during periods of chlorine application.

PERMIT REOPENER CLAUSE

In accordance with LAC 33:IX.2903, this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit; or
3. Require reassessment due to change in 303(d) status of waterbody; or
4. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

316(b) PHASE II RULE REQUIREMENTS

- July 6, 2004, EPA promulgated 'Phase II' regulations in accordance with section 316(b) of the Clean Water Act (CWA).
- January 25, 2007, the Second U.S. Circuit Court of Appeals remanded several provisions of the Phase II rule.
- March 20, 2007, EPA issued a memo saying, "the rule should be considered suspended".
- July 9, 2007, Federal Register notice suspending all parts of the Phase II regulations except 40 CFR 125.90(b) [LAC 33:IX.4731.B]

LAC 33:IX.4731.B provides for regulating the cooling water intake structure (CWIS) for existing facilities on a case-by-case basis using best professional judgment.

This facility was issued a number of previous NPDES and/or LPDES permits and has been withdrawing once-through, non-contact cooling water without any identified problems since 1951. LDEQ has no information which either identifies or verifies any past or current adverse environmental impacts associated with the withdrawal of the applicable cooling water. The facility currently has 4 structures located 400 feet offshore, at an average depth of 30 feet below the river's surface, and has screen wells (with traveling screens) at each intake. LDEQ has made the determination that this CWIS represents the best technology available. This determination is based on current information available and will be re-evaluated either upon promulgation of revised 316(b) Phase II regulations or upon evaluation of the environmental impacts of their CWIS as described below, whichever becomes available first. The revised 316(b) Phase II regulation will supersede any requirements contained in the applicable permit. In addition LDEQ will require an evaluation of the environmental impacts of applicable CWIS as stated in the individual permit and as described in the following paragraphs:

The permittee shall comply with effective regulations promulgated in accordance with section 316b of the CWA for cooling water intake structures. The permittee also must evaluate the environmental impacts of their CWIS by characterizing the fish/shellfish in the vicinity of the CWIS and assessing impingement mortality and entrainment and shall submit the assessment results to LDEQ no later than four (4) years from the effective date of this permit. Based on the information submitted to LDEQ, the permit may be reopened to incorporate limitations and/or requirements for the CWIS.

The fish/shellfish impingement mortality and entrainment assessment must include the following:

1. Source water physical data including a narrative description, scaled drawings, identification and characterization of the source water body's hydrological and geomorphological features, methods used to conduct any physical studies to determine your intake's area of influence within the water body and the results of such studies, location maps showing the physical configuration of the source water body, and other documentation which supports your assessment of the water body;
2. Cooling water intake structure data including a narrative description of the configuration, location, engineering drawings, and operation of your CWIS, including design intake flow velocity; flow distribution, and water balance diagram that includes all sources of water to the facility, recirculating flows, and discharges;

3. Cooling water system data including a narrative description of the operation of your cooling water system, its relationship to the CWIS, the proportion of the design intake flow that is used in the system, the number of days of the year the cooling water system is in operation and seasonal changes in the operation of the system, if applicable;
4. Source water biological evaluation which includes the fish/shellfish assessment and the impingement mortality/entrainment assessment; and
5. An assessment of the cooling water system which includes a discussion or description of how structural or operational actions currently in place reduce adverse environmental impacts caused by your CWIS, and a discussion of additional structural or operational actions, if any, that have been reviewed or evaluated as possible measures to further reduce environmental impacts caused by your CWIS.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENT

In accordance with LAC 33:IX.2707.I.3 and 4, a Part II condition is proposed for applicability to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. The Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit, along with other requirements. If the permittee maintains other plans that contain duplicative information, that plan could be incorporated by reference into the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasure Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of storm water associated with industrial activity, as defined at LAC 33:IX.2511.B.14.

9. COMPLIANCE HISTORY/COMMENTS

A. A review of LDEQ records from the time period of 2004 through 2007 was conducted and no enforcement records were found.

B. The most recent inspection was conducted on May 8, 2007. All areas evaluated during the inspection were satisfactory.

C. A DMR review was completed for years 2004, 2005, 2006, and 2007. The following violations/excursions were noted:

Date	Outfall	Parameter	Permit Limit	Reported Value
11/30/04	005	TSS	30 mg/L	30.9 mg/L
10/31/05	005	TSS	30 mg/L	40.1 mg/L

10. WATER QUALITY CONSIDERATIONS

In accordance with LAC 33:2707.D.1.a, the existing discharges were evaluated to determine whether pollutants would be discharged "at a level which will cause, have the reasonable potential to cause or contribute to an excursion above any state water quality standard."

The discharges from Oufalls 001, 002, 003, and 004 consist of once through non-contact cooling water. The discharge from Outfall 007 consists of stormwater runoff from the fueling dock. These outfalls discharge to the Mississippi River of the Mississippi River Basin, Subsegment 070301. Subsegment 070301 is not listed on LDEQ's Final 2006 303(d) List as impaired, and to date no TMDL's have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

The discharge from Outfall 005 consists of low volume wastewaters from plant washdown, floor and area drainage from Units 1, 2, 3, 4, and 5, maintenance wastewater, stormwater, and mobile intermittent discharge of metal cleaning wastewaters (both chemical and non-chemical) from various plant equipment components including, but not limited to: the steam generator, cooling water heat exchanger, boiler tubes, and piping. The discharge from Outfall 006 consists of low volume wastewaters including, but not limited to, clarifier blowdown, hydrostatic test wastewater, maintenance wastewater, filter backwash, and reverse/osmosis reject water and mobile intermittent discharge of metal cleaning wastewaters (both chemical and non-chemical) from various plant equipment components including, but not limited to: the steam generator, cooling water heat exchanger, boiler tubes, and piping. The discharge from Outfall 008 consists of stormwater runoff from the non-process areas on the west side of the plant. These outfalls discharge to the Parish drainage system thence into Bayou Segnette of the Barataria Basin, Subsegment 020701. Subsegment 020701, Bayou Segnette – From headwaters to Bayou Villars is not listed on LDEQ's Final 2006 303(d) list as impaired. However, subsegment 020701 was previously listed as impaired for organic enrichment/ low DO, fecal coliforms, nitrate/nitrite, and phosphorus, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 020701:

Bayou Segnette TMDL for Biochemical Oxygen-Demanding Substances:

In accordance with Section 5.4.2 of the TMDL, the point source wasteload allocation (WLA) includes loads from all permitted point sources within the subsegment that are known to discharge oxygen demanding effluent. For this subsegment, no point sources were included in the model because they were small and far away from the modeled waterbody. Their loads were accounted for in the model by calibration as part of the boundary conditions or nonpoint source loading. Therefore, no changes in oxygen demanding permit conditions are required for this facility as a result of this TMDL.

TMDL for Fecal Coliforms for Bayou Segnette:

Per the TMDL, "...the WLA for treated wastewater discharges consists of no reductions (both summer and winter)." Because this facility does not discharge treated sanitary wastewater a fecal coliform limit was not placed in the permit.

11. ENDANGERED SPECIES

The receiving waterbody, Subsegment 070301 of the Mississippi River, has been identified by the U. S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon. This draft permit has been submitted to the FWS for review in accordance with in a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and after consultation with FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse affect upon the pallid sturgeon and migratory waterfowl. Effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. The more stringent of technology and water quality based limits (as applicable) have been applied to ensure maximum portection of the receiving water.

The receiving waterbody, Subsegment 020701 of the Barataria Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

12. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

13. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for discharges described in the application.

14. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the proposed issuance of LPDES individual permits and may request a public hearing to clarify issues involved. This Office's address is on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

A local newspaper of general circulation and
The Office of Environmental Services Public Notice Mailing List.